

In the Claims:

Please cancel claims 1-69, amend claim 70, 72-74 and add new claims 75-100 as follows:

1-69. (Cancelled)

70. (Amended) A planarizing apparatus for planarization of microelectronic-device substrate assemblies, comprising:

a table for carrying a polishing pad;

a carrier assembly having a carrier head configured to hold a substrate assembly, the carrier head being movable to press the substrate assembly against the polishing pad, and at least one of the carrier head or the table being translatable with respect to the other to translate the substrate assembly across the polishing pad;

a slurry manufacturing assembly including a first feed line for containing a flow of a first solution having a plurality of first abrasive particles, a second feed line for containing a separate flow of a second solution having a plurality of second abrasive particles of a different type than the first abrasive particles, a first removal unit coupled to the first feed line to selectively remove a first type of selected abrasive particles from the first abrasive particles, and a combination feed line operatively coupled to the first removal unit and the second feed line for containing a combined flow of the first and second solutions after removing the first type of selected abrasive particles from the first solution; and

a slurry dispenser coupled to the combination line to dispense the abrasive slurry, the dispenser being positionable over the table to dispense the slurry from the combination line onto the planarizing pad.

71. (Original) The planarizing apparatus of claim 70 wherein the first removal unit comprises a first filtration unit.

72. (Amended) The planarizing apparatus of claim 71 wherein the first filtration unit comprises a filter that removes abrasive particles having a ~~particles~~ particle size greater than approximately 1.0  $\mu\text{m}$ .

73. (Amended) The ~~system~~ planarizing apparatus of claim 70, further comprising a second removal unit coupled to the second feed line to selectively remove a second type of selected abrasive particles from the second abrasive particles, and wherein the combination feed line is coupled to the second removal unit to contain a combined flow of the first and second solutions after removing the first and second types of selected abrasive particles from the first and second solutions.

74. (Amended) The planarizing apparatus of claim 73 wherein:  
 the first filtration unit comprises a filter that removes abrasive particles having a ~~particles~~ particle size greater than approximately ~~1-0~~ 0.3  $\mu\text{m}$ ; and  
 the second filtration unit comprises a filter that removes abrasive particles having a ~~particles~~ particle size greater than approximately ~~0.2-0~~ 0.05  $\mu\text{m}$ .

75. (New) The planarizing apparatus of claim 70 wherein the first removal unit comprises a first filtration unit that removes abrasive particles having a particle size greater than approximately 0.8  $\mu\text{m}$ .

76. (New) The planarizing apparatus of claim 70 wherein the first removal unit comprises a first filtration unit that removes abrasive particles having a particle size greater than approximately 0.3  $\mu\text{m}$ .

77. (New) The planarizing apparatus of claim 73 wherein the second removal unit comprises a first filtration unit that removes abrasive particles having a particle size greater than approximately 0.15  $\mu\text{m}$ .

78 (New) The planarizing apparatus of claim 73 wherein the second removal unit comprises a first filtration unit that removes abrasive particles having a particle size greater than approximately 0.05  $\mu\text{m}$ .

79. (New) The planarizing apparatus of claim 74 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 1.0  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.05  $\mu\text{m}$ .

80. (New) The planarizing apparatus of claim 74 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 1.0  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.15  $\mu\text{m}$ .

81. (New) The planarizing apparatus of claim 74 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 0.8  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.05  $\mu\text{m}$ .

82. (New) The planarizing apparatus of claim 74 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 0.8  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.15  $\mu\text{m}$ .

83. (New) The planarizing apparatus of claim 74 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 0.3  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.05  $\mu\text{m}$ .

84. (New) The planarizing apparatus of claim 74 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 0.3  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.15  $\mu\text{m}$ .

85. (New) The planarizing apparatus of claim 70 further comprising a mixing unit configured to mix the combined flow of the first and second solutions.

86. (New) The planarizing apparatus of claim 70 further comprising a conduit through which the combined flow of the first and second solutions is passed to provide a turbulent zone for mixing the combined flow.

87. (New) The planarizing apparatus of claim 70 further comprising a volume control unit configured to mix 1-99% by volume of the first filtered solution with 1-99% by volume of the second solution..

88. (New) The planarizing apparatus of claim 87 wherein the volume control unit is configured to alter a mix ratio of the first filtered solution and the second solution during a single polishing cycle.

89. (New) The planarizing apparatus of claim 88 wherein the volume control unit is configured to change from a first mix ratio of the first filtered solution and the second solution to a second mix ratio of the first filtered solution and the second solution.

90. (New) A planarizing apparatus for planarization of microelectronic-device substrate assemblies, comprising:

a table for carrying a polishing pad;

a carrier assembly having a carrier head configured to hold a substrate assembly, the carrier head being movable to press the substrate assembly against the polishing pad, and at

least one of the carrier head or the table being translatable with respect to the other to translate the substrate assembly across the polishing pad;

a slurry manufacturing assembly including a first feed line for containing a flow of a first solution having a plurality of first abrasive particles, a second feed line for containing a separate flow of a second solution having a plurality of second abrasive particles of a different type than the first abrasive particles, a first filtration unit coupled to the first feed line to selectively filter a first type of selected abrasive particles from the first abrasive particles, a combination feed line operatively coupled to the first removal unit and the second feed line for containing a combined flow of the first and second solutions after removing the first type of selected abrasive particles from the first solution;

at least one of a mixer configured to mix the combined flow and a conduit through which the combined flow is passed to form a turbulent zone; and

a slurry dispenser coupled to the combination line to dispense the abrasive slurry, the dispenser being positionable over the table to dispense the slurry from the combination line onto the planarizing pad.

91. (New) The system of claim 90, further comprising a second filtration unit coupled to the second feed line to selectively remove a second type of selected abrasive particles from the second abrasive particles, and wherein the combination feed line is coupled to the second filtration unit to contain a combined flow of the first and second solutions after removing the first and second types of selected abrasive particles from the first and second solutions.

92. (New) The planarizing apparatus of claim 91 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 0.3  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.05  $\mu\text{m}$ .

93. (New) The planarizing apparatus of claim 92 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 1.0  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.05  $\mu\text{m}$ .

94. (New) The planarizing apparatus of claim 92 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 1.0  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.15  $\mu\text{m}$ .

95. (New) The planarizing apparatus of claim 92 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 0.8  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.05  $\mu\text{m}$ .

96. (New) The planarizing apparatus of claim 92 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 0.8  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.15  $\mu\text{m}$ .

97. (New) The planarizing apparatus of claim 92 wherein:

the first filtration unit comprises a filter that removes abrasive particles having a particle size greater than approximately 0.3  $\mu\text{m}$ ; and

the second filtration unit comprises a filter that removes abrasive particles having particle size greater than approximately 0.15  $\mu\text{m}$ .

98. (New) The planarizing apparatus of claim 90 further comprising a volume control unit configured to mix 1-99% by volume of the first filtered solution with 1-99% by volume of the second solution..

99. (New) The planarizing apparatus of claim 98 wherein the volume control unit is configured to alter a mix ratio of the first filtered solution and the second solution during a single polishing cycle.

100. (New) The planarizing apparatus of claim 99 wherein the volume control unit is configured to change from a first mix ratio of the first filtered solution and the second solution to a second mix ratio of the first filtered solution and the second solution.